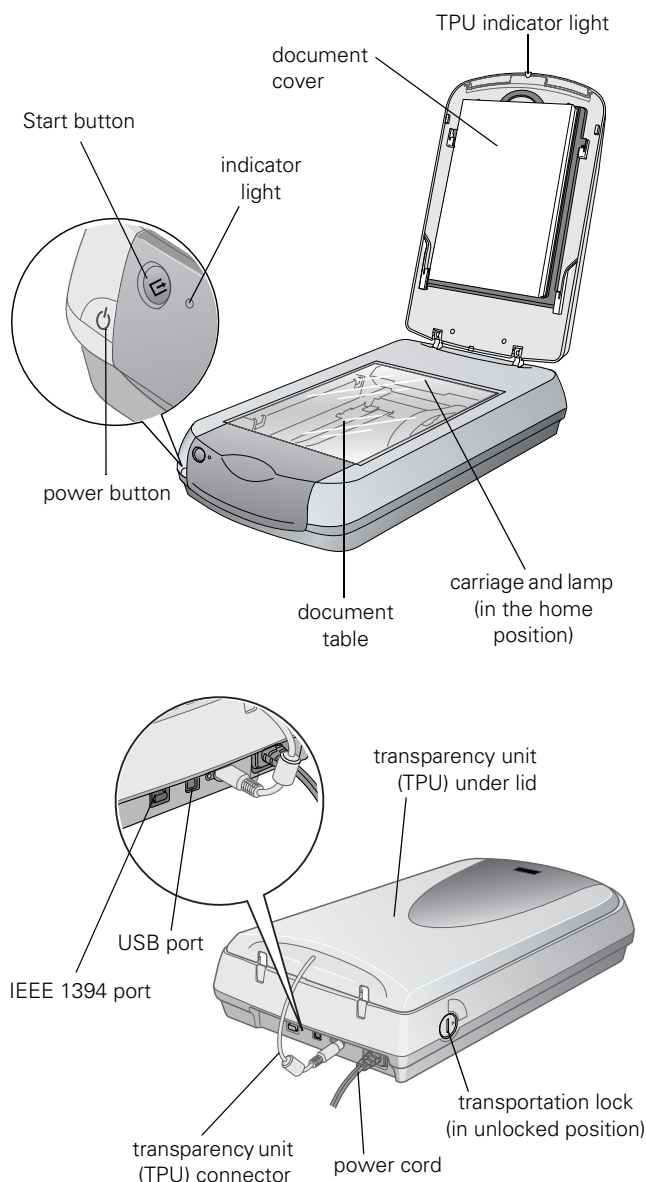


## Scanner Parts



## Scanner Specifications

### Basic Specifications

|                      |                                                  |
|----------------------|--------------------------------------------------|
| Scanner type         | Flatbed, color                                   |
| Photoelectric device | Color CCD line sensor                            |
| Effective pixels     | 27,200 × 37,440 pixels at 3200 dpi, 100% scaling |

|                                                                                                              |                                                                                                                                                                                                           |
|--------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Maximum document size                                                                                        | US letter or A4 size (8.5 × 11.7 inches [216 × 297 mm])                                                                                                                                                   |
| Optical resolution                                                                                           | 3200 dpi                                                                                                                                                                                                  |
| Maximum resolution*                                                                                          | 3200 dpi (main scan) × 6400 dpi hardware (sub scan)                                                                                                                                                       |
| * The maximum hardware resolution of 3200 × 6400 dpi is achieved using EPSON's Micro Step Drive™ technology. |                                                                                                                                                                                                           |
| Maximum interpolated resolution                                                                              | 12,800 dpi                                                                                                                                                                                                |
| Output resolution                                                                                            | 25 to 12,800 dpi (50 to 6400 dpi in 1 dpi increments, 12,800 dpi performed with zoom function)                                                                                                            |
| Speed (color)                                                                                                | 14.3 msec/line at 3200 dpi<br>3.5 msec/line at 600 dpi                                                                                                                                                    |
| Command level                                                                                                | ESC/I (B8), FS                                                                                                                                                                                            |
| Zoom                                                                                                         | 50 to 200% in 1% increments                                                                                                                                                                               |
| Pixel depth                                                                                                  | 16 bits per pixel (input and output)                                                                                                                                                                      |
| Brightness                                                                                                   | 7 levels                                                                                                                                                                                                  |
| Line art settings                                                                                            | Fixed threshold<br>TET (Text Enhancement Technology), enable/disable selectable                                                                                                                           |
| Digital halftoning                                                                                           | AAS (Auto Area Segmentation), enable/disable selectable<br>3 error diffusion modes (A, B, and C) and 4 dither patterns (A, B, C, and D) for bi-level and quad-level data (2 downloadable dither patterns) |
| Gamma correction                                                                                             | 2 types for CRT display<br>3 types for printer output<br>1 type for user-defined                                                                                                                          |
| Color correction                                                                                             | 1 type for CRT display<br>3 types for printer output<br>1 type for user-defined (only user-defined color correction is available in EPSON TWAIN)                                                          |
| Interface                                                                                                    | USB 1.1/2.0 (Type B receptacle connector)<br>IEEE 1394 (FireWire™)                                                                                                                                        |
| Light source                                                                                                 | White cold cathode fluorescent lamp                                                                                                                                                                       |
| Reliability (MCBF)                                                                                           | 30,000 cycles of carriage movements                                                                                                                                                                       |
| Dimensions                                                                                                   | Width: 12.0 inches (30.4 cm)<br>Depth: 18.7 inches (47.6 cm)<br>Height: 4.8 inches (12.2 cm)                                                                                                              |
| Weight                                                                                                       | Approx. 13.2 lb (6.0 kg)                                                                                                                                                                                  |

## Electrical

|                     |                                                                                               |
|---------------------|-----------------------------------------------------------------------------------------------|
| Input voltage range | 100-120 VAC                                                                                   |
| Rated input current | 0.45 A                                                                                        |
| Power consumption   | Approx. 24 W operating<br>approx. 19 W in stand-by mode<br>approx. 5.5 W in power saving mode |

Note: Scanners sold outside the US market may operate at a different voltage. Check the label on the back of the scanner for voltage information.

## Environmental

|                                 |                                                                                                    |
|---------------------------------|----------------------------------------------------------------------------------------------------|
| Temperature                     | Operation: 41 to 95 °F (5 to 35 °C)<br>Storage: -13 to 140 °F (-25 to 60 °C)                       |
| Humidity (without condensation) | Operation: 10% to 80%<br>Storage: 10% to 85%                                                       |
| Operating conditions            | Ordinary office or home conditions; avoid extreme dust, direct sunlight, and strong light sources. |

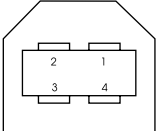
## Safety Approvals

|        |                                                     |
|--------|-----------------------------------------------------|
| Safety | UL 1950<br>CSA C22.2 No. 950                        |
| EMC    | FCC part 15 subpart B class B<br>CSA C108.8 class B |

## USB Interface

|                     |                                                                                                           |
|---------------------|-----------------------------------------------------------------------------------------------------------|
| Interface type      | Universal Serial Bus Specification Revision 2.0                                                           |
| Connector type      | One receptacle (Type B)                                                                                   |
| Electrical standard | Full Speed mode (12 Mbps) and High Speed mode (480 Mbps), Universal Serial Bus Specification Revision 2.0 |

Connector pin arrangement

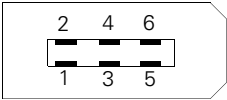
| Pin number | Signal | Connector                                                                           |
|------------|--------|-------------------------------------------------------------------------------------|
| 1          | VCC    |  |
| 2          | -DATA  |                                                                                     |
| 3          | +DATA  |                                                                                     |
| 4          | GND    |                                                                                     |

## FireWire Interface

|                |                            |
|----------------|----------------------------|
| Interface type | IEEE 1394a-2000 compatible |
|----------------|----------------------------|

|                   |                                                                   |
|-------------------|-------------------------------------------------------------------|
| Data transfer     | Half-duplex data / strobe differential serial                     |
| Transfer speed    | Average: 4 Mbytes/sec<br>Peak: 50 Mbytes/sec<br>(100 to 400 Mbps) |
| Synchronization   | Clock synchronization with DS-Link                                |
| Encoding/Decoding | DS-Link                                                           |
| Logic level       | 3.3. V                                                            |

Connector pin arrangement

| Pin number | Signal | Connector                                                                           |
|------------|--------|-------------------------------------------------------------------------------------|
| 1          | VCC    |  |
| 2          | GND    |                                                                                     |
| 3          | TPB-   |                                                                                     |
| 4          | TPB+   |                                                                                     |
| 5          | TPA-   |                                                                                     |
| 6          | TPA+   |                                                                                     |

## Transparency Unit

The transparency unit is built into the scanner lid.

|                         |                                                                                                                                 |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Electrical              | Supply voltage: DC 21.6 to 26.4 V<br>Rated current: 0.5 A                                                                       |
| Document specifications | Positive or negative film in the following sizes:<br>35 mm strips<br>35 mm slides<br>120/220 (6 × 9-cm) film<br>4 × 5-inch film |
| Readable area           | 4 × 9 inches (102 × 230 mm)                                                                                                     |

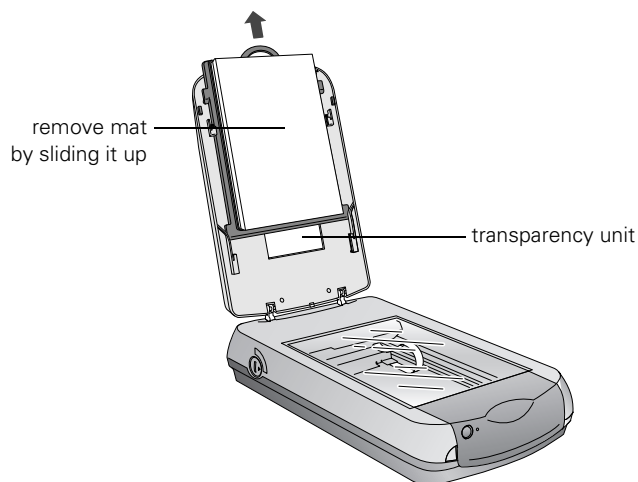
## Scanning Transparencies and Film

Before scanning transparent documents, you need to remove the scanner's reflective document mat; this exposes the scanner's transparency unit (light source), which is built into the lid.

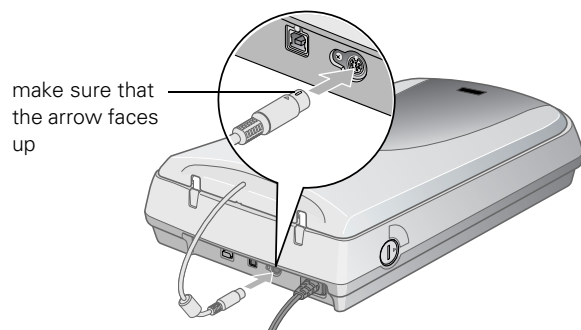
If you're scanning slides or film strips, you'll also need to use one of the film holders.

## Using the Transparency Unit

To use the transparency unit, remove the reflective document mat by grasping the top of the mat and sliding it up gently, as shown.



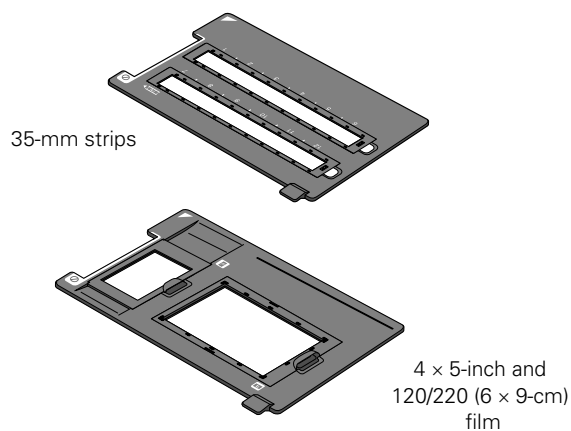
Make sure the cable for the transparency unit is plugged into the round connector. If not, turn off the scanner, then connect the cable as shown. You may need to raise the scanner cover and twist the cable to insert it.



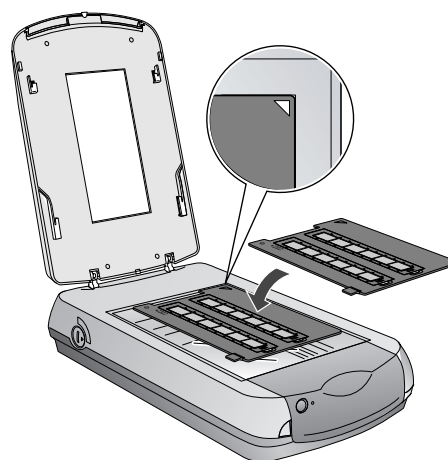
## Using Film Holders

Film has two sides, a shiny base side and a dull emulsion side. The base side of the film has the film maker's name and film ID numbers printed on it. Place the shiny base side down.

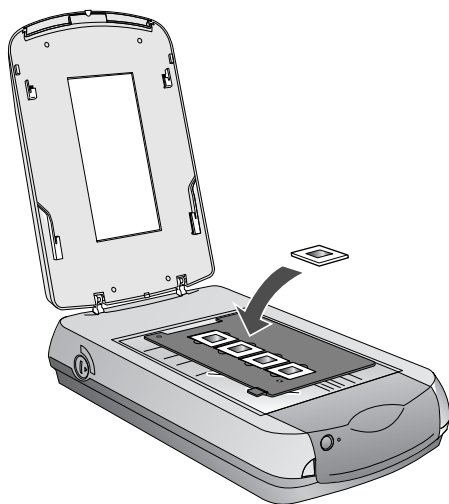
To scan 35-mm film strips, 4 × 5-inch film, or 120/220 (6 × 9-cm) film, place the film in the correct holder:



Place the holder with the film onto the scanner. Make sure the white triangle on the holder points to the upper-right corner of the scanner's document table.



Note: If you're scanning 35-mm slides, set the holder on the scanner first, then place the slides in the holder.



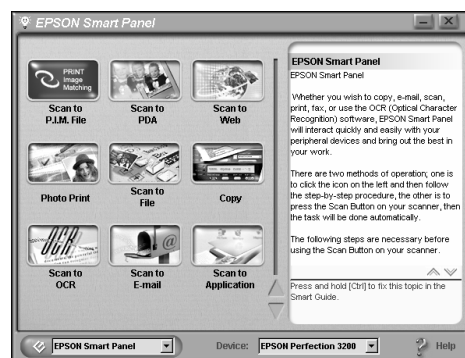
## Using EPSON Smart Panel

Follow these steps to use EPSON Smart Panel to scan documents or photos:

1. Place the original document(s) face down on the document table.
2. Do one of the following to open the Smart Panel:
  - ☐ Press the  Start button on your scanner.
  - ☐ Double-click the  Smart Panel icon on the desktop.
  - ☐ On a Macintosh®, you can also open the Apple® menu and select **EPSON SMART PANEL**.
  - ☐ In Windows® XP, click **Start > All Programs > EPSON Smart Panel > EPSON Smart Panel**.

Note: The  Start button does not support OS X. EPSON Smart Panel is available as a Classic application only. In Windows XP, you may see a message the first time you press the  Start button. Select **Smart Panel for Scanner**, click **Always use this program for this action**, then click **OK**.

EPSON Smart Panel opens on your computer.



3. Click the option of your choice to scan:

**Copy:** Make a quick copy, or several copies, of your document. Printing with EPSON color ink jet printers is recommended.

**Photo Print:** Make prints from your photos, negatives, and slides. Printing with EPSON color ink jet printers is recommended.

**Scan to Application:** Scan an image and open it in any supported application.

**Scan to E-mail:** If you have a MAPI-compliant e-mail program, scan an image and automatically attach it as a file to a new message.

Note: AOL® is not supported by this option. For a list of supported browsers, see your *Smart Panel User's Guide*.

**Scan to File:** Save your scan directly to a file on your hard drive.

**Scan to OCR:** Scan a text document and open it in your word processing application, then edit it and save it as a new file.

**Scan to PDA:** Starts PixExpress to automatically format scans and send them to your Palm™ or Pocket PC device.

**Scan to P.I.M. File:** Save images with an expanded color space and additional P.I.M. (PRINT Image Matching) enhancements for printing with a P.I.M.-enabled printer and P.I.M. application.

**Scan to Web:** Scan your photos and upload them to the EPSON PhotoCenter<sup>SM</sup> photo-sharing website to share them with family and friends. To sign up for an account, go to <http://photo.epson.com>.

4. Follow the on-screen instructions to use the Smart Panel options. On many Smart Panel screens, you'll need to click **Finish** to continue scanning and **Launch** to start other programs. See your on-screen *Smart Panel User's Guide* for detailed instructions.

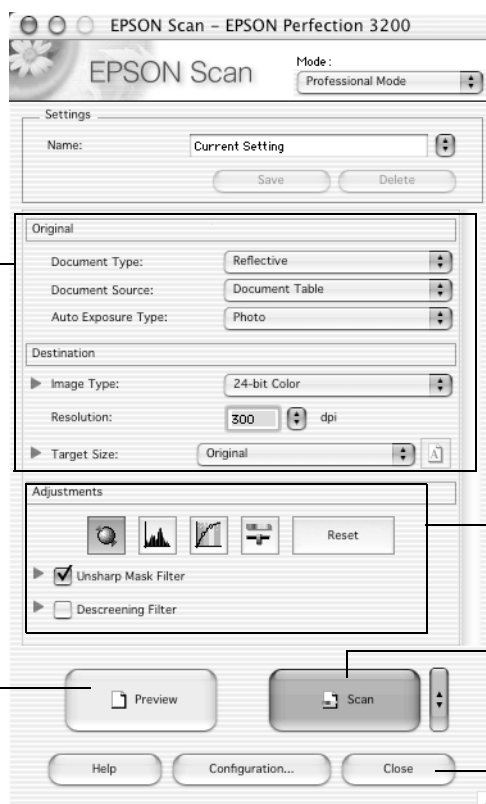
## Selecting EPSON Scan Settings

If you need to manually adjust the settings in EPSON Scan, follow the guidelines shown at right. The illustration shows EPSON Scan (in Professional Mode) with the preferred order in which settings should be adjusted. Detailed descriptions are given in the electronic *Reference Guide*.

Tip: The most important thing to remember when scanning is to select the correct image type and resolution for your scan.

- 1 Select basic settings:  
Document Type  
Document Source  
Image Type  
Resolution  
Target Size

- 2 Preview your image



- 3 Customize your exposure and use color management

- 4 Scan the image into your application

- 5 Close EPSON Scan

## Indicator Light

The indicator light (next to the  Start button) indicates the status of the scanner, as described below.

| Light    | Color | Status                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| On       | Green | The scanner is ready to scan images.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Flashing | Green | The scanner is initializing (warming up) or is busy scanning.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Flashing | Red   | <p>Check the following, then turn your scanner off and back on to reset it:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Make sure the transportation lock is turned to the unlocked position. See the <i>Start Here</i> sheet for details.</li> <li><input type="checkbox"/> Make sure the scanner is properly connected to your computer.</li> <li><input type="checkbox"/> If you are scanning transparencies, make sure you've removed the reflective document mat.</li> </ul> <p>If this does not eliminate the error, the fluorescent lamp may need to be replaced or the scanner may have another problem. Consult your dealer or EPSON.</p> |
| Off      | —     | The scanner is unplugged or turned off.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

## Related Documentation

|             |                                                      |
|-------------|------------------------------------------------------|
| CPD-15341   | EPSON Perfection 3200 PHOTO <i>Start Here</i> poster |
| CPD-15350   | EPSON Perfection 3200 Pro <i>Start Here</i> poster   |
| CPD-15345   | EPSON Perfection 3200 Series scanner software CD-ROM |
| CPD-15344   | EPSON Perfection 3200 Series <i>Notices</i> booklet  |
| —           | <i>Reference Guide</i> (HTML)                        |
| —           | EPSON Smart Panel <i>User's Manual</i> (HTML)        |
| TM-PERF3200 | EPSON Perfection 3200 Series Service Manual          |
| PL-PERF3200 | EPSON Perfection 3200 Series Parts List              |

